

The account of the Whitethroat is minutely biographical, but in that of the Lesser Whitethroat discussions are introduced relative to the nature of the excitement manifested by various kinds of birds, which when with young birds are suddenly approached, and of the cause of the local variations in the songs of birds of the same species, of which he details many examples. He inclines to the opinion that climate may have an influence upon the character of song. He says, in concluding this discussion: "Climate could never have been a cause of song, but by some such means [as previously explained] it may have determined the lines along which any particular development has taken place." — J. A. A.

Reed and Wright on the Birds of Cayuga Lake Basin, New York.—

In a paper of 80 pages, Messrs. Hugh D. Reed and Albert H. Wright, of Cornell University, give an annotated list of 'The Vertebrates of the Cayuga Lake Basin, New York,'¹ with much preliminary matter relating to the topography and meteorology of the region, illustrated with contour and other maps.

The area of the Cayuga Lake Basin is given as "about 1,600 square miles," its meridional length as about 65 miles, with a breadth varying from about 12 to 36 miles. The "basin is, in the main, typically transitional, although in certain localities there is a trace of the Upper Austral and Canadian." The paper is based mainly on the records of the Zoölogical Department of Cornell University since its opening in 1868 and the personal observations of the authors, which cover the last twelve years; and acknowledgments of assistance are made to various members of the university and others.

The paper consists of an 'Introduction' of twenty pages, followed by the 'Catalogue of Species,' which are numbered consecutively from fishes to mammals, the fishes numbering 65 species, the amphibians 17, the reptiles 20, the birds 257, and the mammals 40. Under 'Life Zones,' in the introduction (pp. 376-379), is a brief analysis of the bird fauna with reference to the zones to which the breeding species properly belong, and later (pp. 386-390) the species are tabulated according to their manner of occurrence, as (1) permanent residents, (2) transient visitants, (3) summer residents, (4) winter residents, (5) of rare occurrence, and (6) accidental visitants. The 'catalogue of the species' occupies pp. 409-453, the annotations comprising a quite full statement as to their manner of occurrence, including migration and breeding dates, and the citation in footnotes of the records of capture of the rarer species. The work is evidently based on careful and extensive research and forms a valuable record of present, and

¹ The Vertebrates of the Cayuga Lake Basin, N. Y. By Hugh D. Reed and Albert W. Wright. Proc. American Philosophical Society, Vol. XLVIII, No. 193, 1909 (1910), pp. 370-459, pls. xvii-xx (maps). From the Department of Neurology and Vertebrate Zoölogy, Cornell University. (Although the cover date is 1909, the dates of printing on the signatures are Jan. 6-8, 1910.)

to some extent of earlier, ornithological conditions of this limited and somewhat peculiar area. We note a singular slip in the name of the Pied-billed Grebe which is given (in two places) as *Tachybaptus podiceps* instead of *Podilymbus podiceps*; also *Stryx* for *Strix* (p. 427); *articus* for *arcticus* (p. 429); and in respect to diphthongs one is puzzled to know whether it was the intention to separate or combine the vowels *ae* and *oe*, since they occur about as often *æ* and *œ* as *ae* and *oe*, both forms sometimes occurring on the same or adjoining pages; and the same irregularity of usage with *ae* and *æ*. But these are minor faults in an otherwise very carefully printed paper, and one of permanent value as a contribution to faunal literature.—J. A. A.

Beebe on the 'Ecology of the Hoatzin.'—In a recent paper of 22 pages, illustrated with several half-tone plates, Mr. C. William Beebe treats of the history and habits of the Hoatzin,¹ based on his studies of the bird in its haunts in Venezuela and British Guiana. On neither occasion were young birds to be found, so that the notes on the species refer solely to the adults, which were met with in life on the Guarapiche River in northern Venezuela in March, 1908, and on the Abary River in April, 1909. The introduction contains observations on the structure of its well-developed crop, and on the relationships of this "extremely ancient and isolated type." Then follow sections devoted to the history of its discovery, its nomenclature, geographical distribution, its 'general appearance,' its parasites, habits, food, nest and eggs, the author's field notes at the two localities above mentioned, and an account of his photographic studies, the results of which are reproduced in the accompanying half-tone plates, showing its haunts, attitudes in trees, and its nests. Mr. Beebe found the Hoatzin beginning to nest in British Guiana in April, but the nesting season evidently varies, since others have found it nesting here from December to July, and on the Orinoco in September.

The Hoatzins, says Mr. Beebe, "appear to be extremely sedentary, and day after day we could be sure of finding the birds in the same place. We located nine flocks, ranging from a single pair to forty-two in number, and these seemed never to move from their favorite trees except when driven back a few yards into the jungle by our intruding canoe." One of the photographs here published shows a flock of eleven birds. It is unnecessary to say that Mr. Beebe's paper is an important contribution to the history of an exceedingly interesting and hitherto little known bird.—J. A. A.

Beebe on Birds of Northeastern Venezuela.²—Mr. Beebe, accompanied by Mrs. Beebe, spent about three weeks, during March and April, 1908,

¹ A Contribution to the Ecology of the Adult Hoatzin. By C. William Beebe, Curator of Birds, New York Zoölogical Society. *Zoologica*, Scientific Contributions of the New York Zoological Society, Vol. I, No. 2, pp. 45-66, fig. 1-20. Dec. 28, 1909.

² An Ornithological Reconnaissance of Northeastern Venezuela. By C. William Beebe. *Zoologica*, Vol. I, No. 3, pp. 67-114, fig. 21-37. Dec. 28, 1909.